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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/546,130	08/16/2005	Katsuo Sugahara	09852/0203290-USO	9914

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EXAMINER

MCNELIS, KATHLEEN A

ART UNIT	PAPER NUMBER
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1742

MAIL DATE	DELIVERY MODE
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07/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/546,130	Applicant(s) SUGAHARA, KATSUO	
	Examiner Kathleen A. McNelis	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 19-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 and 37-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/16/05, 6/7/06, 6/18/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims Status

Claims 1-42 are presented for examination wherein claims 5-10 and 13-18 are amended and claims 19-42 are new. Claims 1-10 and 19-36 are withdrawn, being drawn to a non-elected invention as discussed below.

DETAILED ACTION

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- Group I, claim(s) 1-10 and 19-36, drawn to a nickel based alloy with at least 29 but less than 42% Cr, 1-3% Ta, 0.001-0.05% Mg, 0.001-0.04% N, 0.05-0.5% Mn, not more than 0.05% C (claims 1-4); and 0.1 – 2% Mo (claims 2 and 4); and one or both of 0.05 to 1.0% Fe and 0.01 to 0.1% Si (claims 3 and 4).

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- Group II, claim(s) 11-18 and 37-42, drawn to a nickel based alloy with more than 43% and not more than 50% Cr, 0.1 – 2% Mo, 0.001-0.005 Mg, 0.05-0.5 % Mn, 0.001-0.04% N (claims 11 and 12) and one or both of 0.05 to 1.0% Fe and 0.01 to 0.1% Si (claim 12).

The “special technical feature” of group I is Cr from 29% to 42%

The “special technical feature” of group II is Cr from 43 to 50%.

The common concept linking these group is a nickel alloy containing chromium and 0.001-0.05% Mg, 0.001-0.04% N, 0.05-0.5% Mn, not more than 0.05% C and optionally 0.1 – 2% Mo, and one or both of 0.05 to 1.0% Fe and 0.01 to 0.1% Si, 1-3% Ta, however this alloy composition is known in the art as evidenced by WO 97/43457, which discloses in claim 1 a hanger comprising 38 – 75% Cr, 0-0.15% C, 0-1.5% Si, 0 – 1.0% Mn, 0 to 5% Fe, 0-1.0% Mg and optional addition of Ta and Mo and in claim 5 the addition of at most 0.04% N and in claim 6 the optional addition of up to 4.0% Ta and in claim 10 the addition of less than 0.9% Mo.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. Deljudice on June 26, 2007 a provisional election was made with traverse to prosecute the invention of II, claims 11-18 and 37-42.

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Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 and 19-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11, 13-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 303 957 (EP '957).

With respect to claim 11, EP '957 discloses a corrosion resisting Ni-base alloy with generally 38-50% Cr and 0.1 to 2 wt% of at least one of Mo and W where the alloy can be used in applications including pipes (abstract). Example alloys 3, 6, 7, 10-12, 14, 15, 17, 18, 21, 22-25, 28, 29, 31, 33, 36, 38-40, 42, 44, 45, 47, 48, 50, 53, 55-57, 59, 63 and 65 meet the instant claimed limitations for between 43 and 50% Cr, 0.01 to 2.0% Mo, ≤ 0.05 wt% C and between 0.001 and

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0.04% N (Table 1-1, p. 7). EP '957 discloses allowable impurity levels of 0.05 wt% or less Mg, and 0.3 wt% or less Mn (p. 3 lines 9-11). The ranges of Mg and Mn overlap the instant claimed ranges; therefore a prima facie case of obviousness exists (see M.P.E.P. § 2144.05). For example, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include between 0.05 wt% Mg, since EP '957 discloses equal utility over the range of ≤ 0.05 wt% Mg.

With respect to claims 13-15, 17 and 18 although EP '957 does not teach the use of the alloy in a polymer electrolyte fuel cell, such is the applicants' future or intended use. Statements of purpose or intended use in the preamble are evaluated to determine whether the recited purpose or intended use results in a structural difference. If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim (M.P.E.P. 2111.02). EP '957 discloses rolled plate (p. 3 lines 43-55) which meets the structural limitations of claims 13, 17 and 18 and pipe (abstract) which meets the structural limitations of claims 13, 14 and 18, since both the manifold and separator members are structurally the same as pipe and/or plate.

Claims 11-13, 15, 16, 37, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/43457 (WO '457).

WO '475 discloses a hanger made from a nickel base alloy with composition overlapping the claimed ranges as follows:

Element	Composition (wt%)				
	Instant claim		WO '457		
	11	12	Composition	Citation	Overlap
Cr	43-50	43-50	38-75	Claim 1	43-50
Mo	0.1 - 2	0.1 - 2	< 0.9	Claim 10	0.1 - 0.9
Mg	0.001 - 0.05	0.001 - 0.05	0 - 1.0	Claim 1	0.001 - 0.05
N	0.001 - 0.04	0.001 - 0.04	< 0.04	Claim 5	0.001 - 0.04

Element	Composition (wt%)				
	Instant claim		WO '457		
	11	12	Composition	Citation	Overlap
Mn	0.05 – 0.5	0.05 – 0.5	0 – 1.0	Claim 1	0.05 – 0.5
C	< 0.05	< 0.05	< 0.02	Claim 2	< 0.02
Fe	---	0.05 – 1.0	0 – 5.0	Claim 1	0 (claim 11) 0.05 – 1.0 (claim 12)
Si	---	0.01 – 0.1	0- 1.5	Claim 1	0 (claim 11) 0.01 – 0.1 (claim 12)
Ni	balance	balance	balance	Claim 1	balance

With respect to claims 11 and 12, the compositions disclosed by WO '457 overlap the claimed ranges as tabulated above; therefore a prima facie case of obviousness exists (M.P.E.P. § 2144.05). For example, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include between 43 and 50 % Cr in the alloy of WO '457, since WO '457 discloses equal utility over the boarder range of 38 to 75%.

With respect to claims 13, 15, 16, 37, 39 and 40, although WO '457 does not teach the use of the alloy in a polymer electrolyte fuel cell, such is the applicants' future or intended use. Statements of purpose or intended use in the preamble are evaluated to determine whether the recited purpose or intended use results in a structural difference. If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim (M.P.E.P. 2111.02). The hanger disclosed in WO '457 is used for supporting pipes and other elements to be mounted in the chamber (p. 2) and is therefore a structural member and a pipe member. WO '457 discloses that preferably all of the components of the hanger are entirely made form the corrosion resistant material (p. 10 lines 19-28) and further discloses the use of screws, bolts or pins (p. 11) to insert through the flange and secure to the wall of the combustion chamber. It would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate the

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screws, bolts or pins (i.e. fasteners) from the alloy of WO '457 since WO '457 teaches that all components are advantageously fabricated from this material for corrosion resistance.

Claims 12, 38-39, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 303 957 (EP '957) in view of WO 97/43457 (WO '457).

With respect to claim 12, EP '957 is applied as discussed above regarding the rejection of claims 11, 13-15, 17 and 18 as unpatentable over EP '957. Further, EP '957 discloses that 0.3 wt% or less Fe may be included as impurity (p. 3 lines 9-11) which overlaps the claimed range of between 0.05 to 1.0 wt%, therefore a prima facie case of obviousness exists (M.P.E.P. § 2144.05).

EP '957 does not disclose the inclusion of between 0.01 to 0.1 wt% Si.

WO '457 discloses a substantially similar alloy as discussed above regarding the rejection of claims 11-13, 15, 16, 37, 39 and 40 as unpatentable over WO '457. WO '457 discloses that up to 0.95 wt% Si can be beneficially added to improve corrosion resistance (paragraph bridging pp. 5-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add up to 0.95 wt% Si as taught by WO '457 to the alloy of EP '957 to improve corrosion resistance as taught by WO '457 and as desired in EP '957.

With respect to claims 37-39, 41 and 42, although EP '957 does not teach the use of the alloy in a polymer electrolyte fuel cell, such is the applicants' future or intended use. Statements of purpose or intended use in the preamble are evaluated to determine whether the recited purpose or intended use results in a structural difference. If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim (M.P.E.P. 2111.02). EP '957 discloses rolled plate (p. 3 lines 43-55) which meets the structural limitations of claims 13, 17 and 18 and pipe (abstract) which meets the structural limitations of claims 13, 14 and 18, since both the manifold and separator members are structurally the same as pipe and/or plate.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 11 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/501100. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding instant claims 11 and 12, '100 claim 1 discloses a nickel based alloy of 43-50% Cr, 0.1 to 2 % Mo, 0.001 to 0.05% Mg, 0.001 to 0.04 % N, 0.05 to 0.5 % Mn and 0.05% or less C which is the same composition as in instant claim 11. '001 claim 2 discloses that the alloy further contains 0.05 to 1.0 wt% Fe and 0.01 to 0.1 wt% Si, which is the same composition as in instant claim 12.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen A. McNelis whose telephone number is 571 272 3554. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAM
06/29/2007



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